



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

June 7, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Michael Keller
Vice President, Operations
Chemical Processors, Inc.
2203 Airport Way South
Suite 400
Seattle, WA 98134

Re: Pier 91 facility, WAD000812917

Dear Mr. Keller:

Enclosed is Order No. 91-154. The Washington Department of Ecology (Ecology) has further reviewed the recently revised Part B Dangerous Waste Permit Application submitted by Chemical Processors Inc. (Chempro) for the Pier 91 facility. Comments are provided in the enclosed Notice of Deficiency (NOD). Ecology policy provides for escalating enforcement action with multiple NODs. Consequently, this third NOD for the facility is being issued as an Administrative Order.

This Order is issued under the provisions of RCW 70.105.095. Any person aggrieved by the Order may obtain review thereof by application, within 30 days of receipt of this letter, to the Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, Washington 98504-8921. Concurrently, a copy of the application must be sent to the Enforcement Officer of the Department of Ecology, Mail Stop PV-11, Olympia, Washington 98504-8711. The procedures for appealing Orders and/or Penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.



Michael Keller
June 7, 1991
page 2

Ecology encourages you to meet with us at a mutually convenient time to discuss any questions you may have regarding this NOD. In order to arrange such a meeting, or if you have any questions concerning this document, please contact Doug Brown at (206) 459-6993.

Sincerely,



Cindy J. Gilder, Supervisor
Hazardous Waste Permits

enclosures

cc: David Aggerholm, Port of Seattle
Marsha Beery, SHW
Cathy Buller, Chempro
Julie Sellick, NWRO
Carrie Sikorski, EPA Region 10
John Williams, Central Programs

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)	
Chemical Processors Inc.)	
WAD D000812917)	
with Chapter 70.105 RCW and the)	ORDER
Regulations of the)	No. DE 91-154
Department of Ecology)	

To: Michael Keller

Chapter 173-303 Washington Administrative Code (WAC), entitled "Dangerous Waste Regulations," designates those solid wastes which are dangerous or extremely hazardous to the public health and environment; and provides for surveillance and monitoring of dangerous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely. This includes specifying design and operational requirements for dangerous waste treatment facilities and the requirements for applications for final permits for such facilities.

FINDINGS:

Chemical Processors Inc. operates a dangerous waste treatment and storage facility located at Pier 91, 2001 W. Garfield St., Seattle, WA 98119. Review of the Part B Permit Application for this facility (submitted 11/8/88 and revised 1/12/90, 7/2/90, 9/13/90, 12/27/90, 3/14/91, and 5/1/91) has shown that Chemical Processors Inc. is not in compliance with the requirements of WAC 173-303-806.

Revised Code of Washington (RCW) 70.105.095 reads in part: "Whenever on the basis of any information the Department determines that a person has violated or is about to violate any provisions of the Chapter, the Department may issue an Order requiring compliance either immediately or within a specified period of time."

In view of the foregoing and in accordance with the provisions of RCW 70.105.095.

IT IS ORDERED THAT Chemical Processors Inc. shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

Respond to comments in the enclosed Notice of Deficiency (NOD), except as indicated below, within 30 days of receipt of this order.


Respond to comments 22, 25, and 26 in the enclosed NOD within 60 days of receipt of this order.

Compliance with this Order does not relieve Chemical Processors Inc. of responsibility for compliance with any Federal, State, or local laws or ordinances.

Any person who fails to take corrective action as specified in a compliance order shall be liable for a civil penalty of not more than ten thousand dollars per violation, for each day of continued noncompliance. Noncompliance with any section or subsection of Chapter 173-303 WAC constitutes a separate violation. In addition, the Department may suspend or revoke any permits and/or certificates issued under the provisions of this Chapter to a person who fails to comply with an order directed against him or her.

This Order is issued under the provisions of RCW 70.105. Any person aggrieved by this Order may obtain review thereof by application, within thirty (30) days of receipt of this Order, to the Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, Washington 98504-8921. Concurrently, a copy must be sent to the Enforcement Officer of the Department of Ecology, Mail Stop PV-11, Olympia, Washington 98504-8711. The procedures for appealing Orders and/or Penalties issued by the Department of Ecology are set forth in Chapter 43.21B RCW and the regulations adopted thereunder.

Dated at Olympia Washington, June 7, 1991.



Cindy J. Gilder, Supervisor
Hazardous Waste Permits

Enclosure

NOTICE OF DEFICIENCY
PART B DANGEROUS WASTE PERMIT APPLICATION
CHEMICAL PROCESSORS, INC. (PIER 91)

June 7, 1991

General Comments

1. The owner's signature is not on the current Part A application. Additionally, the Owner Certification in Section K of the Permit Application is dated August 31, 1989, prior to significant revisions in facility design and an increase in capacity. Current signatures must be provided for each of these documents.

2. The May 1, 1991 response to NOD comment #4 is incorrect. The container storage area is RCRA regulated. If this is to be a permitted storage area, as the response implies, its capacity must be added to the Part A Application. If it is not to be a permitted area it is still RCRA regulated and must meet the requirements of WAC 173-303-200(1)(b). Revise Figure B1-2 and all identical figures throughout the application to remove the reference to this area as "NON-RCRA". (See also comment number 7)

3. The construction schedule submitted with the December 27, 1990 NOD response is inadequate and confusing. Provide a new schedule which addresses the following concerns:

- * State where the loading/unloading pad will be constructed. The facility layout indicates that this will be in the proposed facility, yet construction of this portion of the facility is not scheduled to begin until at least year 5. If the loading pad is to be somewhere else, the application must be revised to reflect this. (See also comment number 4)

- * Secondary containment upgrades are not discretionary. Upgrades to approved standards must be completed prior to storing or treating dangerous waste in that area. Note that WAC 173-303-610(3)(c)(ii) requires that, unless the facility can make certain demonstrations, dangerous waste management units must begin closure no later than one year after the date on which the unit received the most recent volume of dangerous waste.

- * The plans for upgrading tank bottoms is not acceptable. References to this procedure must be deleted and a timetable for construction of an acceptable secondary containment system provided. (See also comment number 25)

- * The time frames in the current schedule are too long. By their comment on the Georgetown facility Draft Permit EPA has indicated that extended construction schedules are not acceptable.

Specific Comments

4. **Figure B1-2.** Revise this and all identical diagrams to delete reference to the "existing RCRA loading/unloading pad" as this pad does not currently exist.
5. **Section B1.6.2, p. B20.** Determination of Btu value from chemical composition is not adequate. Clearly state that the Btu value of all wastestreams will be determined only by testing.
6. **Section B1.6.2, p. B27.** The last sentence on this page states that "if necessary" centrate will be sent to oil and coolant emulsion treatment. Clarify what parameters and thresholds are used in making this determination.
7. **Section B4-1, p. B45.** Please explain how the facility will not violate the generator 90 day accumulation limits when shipping out waste only 2 to 4 times annually.
8. **Section B7.3, p. B67.** The paragraph citing the use of MTCA standards for spill clean up is not adequate. The paragraph is very confusing as written. Clearly state that MTCA standards are applicable to at least all dangerous constituents under 40 CFR 261 Appendix VIII and dangerous waste residues. Delete any reference to "waste managed at the facility". Make these changes here, and wherever else in the application MTCA standards are discussed (i.e., Appendix G-2, Sections 11.2, 11.5.2, and 11.5.3).
9. **Section C1.2.** Clearly state in the application where the centrifuge (2601) will be located. The text indicates relocation from "existing" area to "proposed" area. However, Figure C1-2 states that the centrifuge will be relocated "if necessary".
10. **Section C2.4.4.** The discussion of analytical rationale should clearly indicate that the Flash Point test must be used in order to determine whether the waste exhibits the characteristic of ignitability.
11. **Appendix C-2.** The response to Item 22, regarding the Radioactivity Test, in the Pier 91 NOD #2 was inadequate. While Ecology chose not to revise this language for the Georgetown Permit, clarification will be necessary for this and future facility permit applications. Please define the type of detector to be used, the sample container(s), the geometry of the detector and container (including distance), and what constitutes "above background".

12. **Appendix C-2.** The December 27, 1991 revisions to the Permit Application included only one revised PCB analytical test method, without indication as to whether this was a revised primary or secondary analysis. Prior to this, the primary and secondary methodology had been the same. Please clarify what is the current PCB analytical test method(s).

13. **Section D1.1.** Provide more information about the tank anchor bolt systems. Specifically, demonstrate that bolts do not compromise the integrity of the secondary containment pad or coatings. Provide information for bolt systems installed into both new and existing concrete.

14. **Appendix D-8.** Provide design information sheets for proposed tanks 2303, 2304, 2305, and 2306. The current application does not contain this information.

15. **Section D1.1.** The text of this section and the Tank Data Sheets give conflicting information about whether or not an interior tank coating will be applied to tanks 2303-2306. These sources and the Design Information Sheets in Appendix D-8 also give conflicting information about the specific coating to be applied to these and other tanks, variously indicating coal tar epoxy, Tnemec #61, or Tnemec 46H-413. Clearly state here and in Section D1.3 which coating will be applied or the minimum chemical resistance specifications of any coating to be used.

16. **Appendix D-2.** Provide chemical resistance specifications for all tank interior coatings proposed for use at the facility. (See also comment number 15) Provide the Tnemec Chemical Resistance Guide to explain the abbreviations in the Chemical Resistance Chart already provided.

17. **Section D1.1, p. D30.** Text on this page implies that existing tanks are not constructed of carbon steel. However, text in Section D1.3 (p. D42) as well as Table D1-4, state that all tanks are constructed of carbon steel. Please clearly state in the application whether all existing tanks are constructed of carbon steel. If the existing tanks are not of carbon steel, revise the last paragraph of p. D42, as existing tank 2706 is proposed to be used to store oil and coolant emulsions.

18. **Appendix D-8.** Design information for the centrifuge is not provided as indicated in Section D1.1 (p. D34). Provide this information.

19. Section D1.3, p. D43. Explain how existing riveted tanks can be certified to API 650 "Welded Steel Tanks for Oil Storage," as stated here.

20. Section D1.3, p. D44. Please clarify what is meant by "UL 142 tanks" as used here. Do the numbers presented here refer to the proposed tanks original thicknesses, or existing tanks current thicknesses, or both? Clearly state in the application the minimum wall thickness of all existing tanks. Also state the corrosion allowances above design standards for all existing tanks.

21. Appendix D-8. Revise Drawing 24005 to indicate tank ID numbers (in the figure not the title) as 2308, 2309, and 2310, not 2708, 2709, and 2710 as is currently indicated.

22. Section D1.2.1. The application does not contain design and construction information for the secondary containment system in the existing portion of the facility. Provide a description of the tank containment system including drawings and a description of the basic design parameters, dimensions, and materials of construction. Demonstrate that the secondary containment system will protect against spills, leaks, and precipitation. Describe the impervious base underlying the tank. This description must include the following:

- * A demonstration of the materials of construction used to construct or line the system and a demonstration that these materials are compatible with the wastes in the tank system.
- * A demonstration that the secondary containment system has sufficient strength and thickness to prevent failure caused by contact with the waste, pressure gradients (including static head and external hydrological forces), climatic conditions, or the stress of daily operations.
- * Design drawings and a description showing how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.
- * Design drawings and a demonstration that the secondary containment system is placed on a foundation or base that is capable of providing support, resisting pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift.

23. **Appendix D-4.** The text in drawing D-88-24-S1 indicates that neoprene sponge rubber will be used as the joint filler material. However, drawing D-88-24-S4 indicates that PRC 280 will be used. Additionally, PRC 280 is the only caulk or filler described in Appendix D-2. Rectify these inconsistencies.

24. **Appendix D-4.** The text in drawings D-88-24-S1 and D-88-24-S4 indicates that stainless steel waterstops from Vulcan Metal (or equal) will be used. However, the only information on waterstops in Appendix D-2 is for Greenstreak plastic waterstops, with the coversheet implying that Greenstreak #705 is to be used. Rectify this inconsistency.

25. **Section D1.2.1, p. D38.** The retrofitting plans for the existing tanks on ring wall foundations discussed here, and diagramed in Drawing 23008 (Appendix D-8), are inadequate. It must be possible to immediately determine if tank bottoms are leaking. It must also be possible to inspect the secondary containment. These plans do not allow for either of these requirements. Provide an alternative plan. As any acceptable alternative will most likely require removing and reinstalling the tanks, be aware that all tanks so moved will require recertification for structural integrity.

26. **Appendix D-8, Drawing 24006.** The plan for new tank foundations on top of old ring wall foundations as diagramed here is inadequate. Secondary containment must be continuous. Provide an alternative plan which incorporates waterstops between the tank support pad and the containment slab.

27. **Section D1.2.1, p. D38.** Text on this page states that secondary containment structure and tank bases for the proposed facility will be constructed over a portion of the existing concrete at the facility. Revise the application to clearly state that any existing concrete, either in the proposed or existing facility, must be decontaminated or removed prior to being poured over. Decontamination, and sampling and analysis to certify decontamination, must be performed as described in the facility closure plan.

If any concrete which may have been exposed to hazardous waste and has subsequently been covered currently exists at the facility and may exist at closure, revise the closure plan to include sampling and analysis of this material prior to certification of secondary containment decontamination.

28. **Appendix D-5.** The gross volume calculations, on page 1 of 4 from EISI, must be based on the minimum berm height of the entire area, not the average height and not on separate heights for each subarea as is done here. Revise this and subsequent calculations in the appendix to demonstrate adequate secondary containment on this basis.

29. Section D1.4, Figure D1-25. This diagram indicates that all tanks in the existing tank area can discharge directly to METRO. However text in this section (pp. D56, D57) and section B (pp. B20, B21, B24, B26) as well as Figure B1-3 indicate that treated wastewaters are transferred to holding tanks prior to discharge. Rectify this discrepancy.

30. Section D1.4, Figure D1-26. This diagram indicates that tank 2204, isolation storage, is not "hard plumbed" to any other tank. However, diagram B1-3 implies use of isolation storage during the treatment of phenolic contaminated oil and coolant emulsions. Revise the application to clarify whether tank 2204 is the isolation tank implied in Figure B1-3, and if it is, clarify by what means its contents are subsequently transferred to other tanks.

31. Section D1.4, Figures D1-25 and D1-26. These diagrams show the outputs of the sludge storage and processing tanks and centrifuge go to oil/coolant storage tanks only, with no apparent connection to wastewater treatment. However, Figure B1-5 and text on page B27 indicate the primary output of sludge supernatant and centrate is to the wastewater holding tanks. Rectify this inconsistency.

32. Section F3.1.3, p. F27. This section implies that the foamite fire suppressant system is hard plumbed only to tanks in the non-hazardous portion of the facility. During tours of the facility, Ecology staff were informed that all hazardous waste tanks are hard plumbed. Revise the application to state explicitly which tanks have the foamite system directly installed. If tanks which may contain flammable hazardous waste do not have foamite, provide rationale for this.

33. Section F5.0, p. F43. This section states that the facility "does not accept flammable wastes (flash point <100F)". This conflicts with text on pages B20, B25, and C15, which state that the facility will accept such wastes into isolation storage. Rectify this inconsistency.

34. Section I1.5.3, p. I33. There is a typographic error in the second paragraph. it should read "...consultants at the time..."

35. Section I1.5.3. Revise the application to include biased concrete sampling under locations of stains or include rationale for not doing such sampling.

36. Section I1.5.3, p. I41. Revise the application here and wherever else applicable to clearly state that all closure samples will be analyzed for 40 CFR Part 261 Appendix VIII constituents, not just wastes historically managed on site. Revise closure cost estimates to reflect this change as well. (See also comment number 50)

37. **Table I1.3,.** Clarify the source of the rinsate requiring off-site disposal as a DW fuel. The current construction of the table implies that all of this material is derived from the rinsing of tank 2204. State that this material must be sent to a certified burner or meet minimum Btu requirements as described in Sections B1.6.2 and C2.0. Also clarify the source and nature of "rinsate requiring off-site treatment and disposal". Is this rinsewater sludge? (See also comment number 44)
38. **Section I1.5.3, p. I36.** If the facility has handled listed waste, then the containment pad must be presumed to be a listed waste and cannot be disposed of at a sanitary landfill. Delete the reference to this option.
39. **Table I1-5.** In the column under "Quantity", revise the table to indicate 30 random samples analyzed for volatiles under the existing dangerous waste tank system, not 10 as it currently states.
40. **Table I3-1.** Please clarify what is meant by "1990 annual inflation factor". Does the application of this multiplier to the original cost estimates (in 1988 dollars) result in 1989 dollars or 1990 dollars? If 1990 dollars, please account for the 1989 inflation factor.
41. **Table I3-4.** In the column under "Quantity", revise the table to indicate 10 analyses total for composited random samples in the existing dangerous waste tank system, not 5 as it currently states.
42. **Appendix I-2, section A2.** The unit costs for the material returned to DW fuels (at the end of the section) do not add to the total shown. The costs add to \$.45/gal, while the total is indicated as \$1.29/gal. Please clarify what is the correct unit cost and revise the cost estimate as necessary.
43. **Appendix I-2, section A4.** For the last cost estimate of this section (supernatant returned to industrial wastewater), no treatment cost is presented for the wastewater. Justify this omission as well as the quantity of sludge produced and sludge treatment unit cost.
44. **Appendix I-2, section A5.** Revise the application to discuss this disposal option in Section I1.5.1. State that this material, and all other inventory or rinsate to be incorporated in DW fuel must be sent to a certified burner or meet minimum Btu requirements as described in Sections B1.6.2 and C2.0.

45. **Appendix I-2, section C6.** As with inventory elimination, closure cost estimates for rinsate treatment and disposal must not assume the availability of on-site treatment. Revise the cost estimate to include transportation to an alternate facility or portable treatment brought on-site.

46. **Appendix I-2, section C6.** This section is confusing as constructed. Clarify the quantity of rinsate destined for dangerous waste fuel. As currently worded it is implied 223,868 gallons is the quantity of dangerous waste fuel.

47. **Appendix I-2, section C6.** Clarify, here and wherever else the term is used, what is meant by "incineration as dangerous waste fuel". Is this incineration? Or is this incorporation in DW fuel as the current cost basis would imply? (See also comment number 44)

48. **Appendix I-2, section C6.** Explain the derivation of all the volume quantities in the section describing the fate of the 210,576 gallons of rinsate.

49. **Appendix I-2, section D1.** There is a typographic error, the first sentence should read, "Assume 19 concrete samples..." Note, the cost calculations are correct.

50. **Appendix I-2, section D2.** Revise the cost estimates in this section to include analysis for all 40 CFR Part 264 Appendix VIII constituents.

51. **Appendix I-2, section D-4.** Revise this section to include costs for 45 random soil samples under dangerous waste tank system analyzed for volatiles, not 15 as currently indicated. Additionally, please note that the current subtotal of TOTAL ANALYTICAL COSTS FOR SOILS SAMPLES does not appear to be correct. As currently presented costs should total \$33,450, not \$37,286. Adding the additional cost of the 30 extra volatiles analyses discussed above ($30 \times \$225 = \$6,750$) should result in a revised total of \$40,290.

52. **Appendix I-2, section D-4.** The current TOTAL SAMPLING & ANALYTICAL COSTS does not include the cost of collecting soil samples (\$1,496). Revise this total to include this cost as well as the revised analytical cost subtotal. (See comment number 51)

Notice of Deficiency
June 7, 1991
page 9

53. **Appendix I-2, section E2.** Clarify the number of hours the professional engineer will spend on site each week during closure. The text in this section says 4 hours, with the cost based on 6 (clarify whether this includes travel time). However, figure I1-3, states that the professional engineer will spend 6-8 hours per week on site. Revise the cost estimate to be consistent with the 6-8 hours on site per week figure.

54. **Appendix I-4.** Clarify whether the \$10,000,000 coverage is per facility or for all five Chempro facilities. If it is for all five, demonstrate that occurrences at one or more facilities cannot reduce the coverage remaining under the annual aggregate such that another facility cannot meet minimum regulatory requirements.

55. **Section J2.6, p. J7.** Revise this section to clearly state that MTCA applies to all facility cleanup activities, not just closure.